

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Marc W. Rice et al.

Confirmation No.: 7526

Application No.: 10/743,436

Patent No.: 7,341,575 B2

Filing Date: December 23, 2003

Patent Date: March 11, 2008

For: MEDICAL INJECTOR AND MEDICAMENT
LOADING SYSTEM FOR USE THEREWITH

Attorney Docket No.: 88066-5499

REQUEST FOR CERTIFICATE OF CORRECTION UNDER 37 C.F.R. § 1.323

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Patentees hereby respectfully request the issuance of a Certificate of Correction in connection with the above-identified patent. The correction is listed on the attached Form PTO-1050. The correction requested is as follows:

Column 10:

Line 58 (claim 10, line 5), before "the post" delete "by".

Line 64 (claim 12, line 1), before "11", change "claims" to -- claim -- .

The requested changes are to correct errors of a clerical or typographical nature and do not involve changes that would constitute new matter or require reexamination.

A fee of \$100 is believed to be due for this request. Please charge the required fees to Winston & Strawn LLP Deposit Account No. 50-1814. Please issue a Certificate of Correction in due course.

Respectfully submitted,

7-31-08

Date



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UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : 7,341,575 B2
APPLICATION NO. : 10/743,436
DATED: : March 11, 2008
INVENTOR(S) : Rice et al.

Page 1 of 1

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 10:

Line 58 (claim 10, line 5), before "the post" delete "by".

Line 64 (claim 12, line 1), before "11", change "claims" to -- claim -- .

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medicament cartridge 202 has a first chamber 204 that contains the lyophilized medicament, a second chamber 206 that contains the reconstituting fluid, and a dividing stopper 208 separating the two. Medicament cartridge 202 also has a bypass 210 so that once dividing stopper 208 reaches bypass 210, the reconstituting fluid can enter first chamber 204 to reconstitute the lyophilized medicament. Movement of dividing stopper results from the threading of cap 22 to cartridge housing 24, with threads 46, 50. Specifically, as cap 22 is threaded onto cartridge housing 24, post 42 pushes stopper 28 towards adapter 20. The resulting fluid pressure of reconstituting fluid causes dividing stopper 208 to also move toward adapter 20 until bypass 210 is reached. Once dividing stopper 208 reaches bypass 210, further movement of stopper 28 allows the reconstituting fluid to enter into first chamber 204 and reconstitute the lyophilized medicament.

FIG. 33 shows another embodiment of a cap 212 with a bore 214 having a shape and size that matches that of the proximal end of nozzle member 60 of needle free syringe assembly 14. As shown in FIG. 34, the proximal end of nozzle member 60 fits snugly into bore 214. Because of the tight fit, cap 212 and nozzle member 60 rotate together. Thus, cap 212 can be used to attach or detach nozzle member 60 from needle free syringe assembly 14.

While it is apparent that the illustrative embodiments of the invention herein disclosed fulfill the objectives stated above, it will be appreciated that numerous modifications and other embodiments may be devised by those skilled in the art. Therefore, it will be understood that the appended claims are intended to cover all such modifications and embodiments which come within the spirit and scope of the present invention.

What is claimed is:

1. An injection device, comprising:
 - an injector filling assembly, comprising:
 - a cartridge housing configured for receiving a cartridge that has a chamber containing a medicament and first and second ends, the first end including a seal for sealing the medicament in the chamber, and the second end including a stopper sealingly disposed in the chamber;
 - an adapter associated with the cartridge housing and configured for coupling the chamber to an injector for transferring the medicament to the injector for loading the injector; and
 - a post associated with the cartridge housing such that the post is too short to load the injector by biasing the stopper with the post, but is sufficiently long to displace the stopper towards the seal by an amount sufficient to overcome any adhesion between the chamber and the stopper for permitting filling of the injector by drawing the medicament from the chamber by vacuum; and
 - a needle free injector comprising:
 - a needle free syringe assembly comprising: a nozzle member defining a fluid chamber and having a proximal end configured and dimensioned for mating with the second side of the adapter and a distal end, and a plunger movable in the fluid chamber; and
 - a power pack assembly comprising:
 - a housing having a proximal end connectable with the distal end of the nozzle member and a distal end;
 - a trigger assembly; and
 - an energy source operatively associated with the trigger assembly so that movement of the trigger assembly activates the energy source to move the

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plunger in a first direction to expel medicament from the fluid chamber when the adapter is not connected to the needle free syringe assembly and movement of the plunger in a second direction draws medicament out of the cartridge chamber and into the fluid chamber when the adapter is connected to the needle free syringe assembly.

2. The injection device of claim 1, wherein the filling assembly further comprises the cartridge.

3. The injection device of claim 2, wherein the medicament chamber comprises a first chamber containing a lyophilized medicament, a second chamber containing a reconstituting fluid, a dividing member separating the first and second chambers, and a bypass channel for providing fluid communication between the first and second chambers upon movement of the dividing member, wherein fluid pressure generated by movement of the stopper causes movement of the dividing member.

4. The injection device of claim 1, wherein the injector and filling assembly comprise threaded portions configured for connecting to each other.

5. A method of filling the injection device of claim 1, comprising:

- associating the adapter with the cartridge to associate the chamber with the injector;
- associating the adapter with the injector;
- displacing the stopper within the chamber with the post; and
- transferring the medicament to the injector from the chamber by providing aspiration from the injector.

6. The injection device of claim 1, wherein the post is associated with the cartridge housing such that movement of the post towards the first end is limited to limit the displacement of the stopper by the post for permitting the majority of the medicament to be drawn out of the chamber by vacuum.

7. The injection device of claim 1, wherein the post is associated with the cartridge housing such that the post is prevented from moving past a post position to prevent the post from further displacing the stopper towards the seal to require loading the injector by drawing the medicament from the chamber by vacuum.

8. The injection device of claim 7, wherein the post in the post position is prevented from further displacing the stopper towards the seal so that the majority of the medicament must be drawn out of the chamber by vacuum.

9. The injection device of claim 1, wherein the post is associated with the housing such that the post is prevented from displacing the stopper towards the seal by distance sufficient to expel a substantial amount of the medicament from the chamber when the seal is open.

10. The injection device of claim 1, wherein the assembly further comprises a cap to which the post is mounted, the cap being engageable with the cartridge housing on a side of the housing opposite from the adapter to limit displacement of the stopper towards the post.

11. The injection device of claim 10, wherein the cap is engageable with the housing such that upon said engagement the post is moved against the stopper to displace the stopper sufficiently to overcome the adhesion.

12. The injection device of claim 11, wherein the cap and housing comprise threads that are engageable by rotating the cap to limit the displacement of the stopper towards the seal by the post.

claim